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# From psychological- disciplinary knowledge to a transdisciplinary one

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## Abstract

The article highlights the relation of congruence and complementarity between disciplinary knowledge and the transdisciplinary one. Without being a new discipline, transdisciplinary emerges from disciplinary research, which in turn is clarified by the transdisciplinary knowledge. First mention of transdisciplinary concept was made in 1970 at the international workshop "L'interdisciplinarité - Problemes d'enseignement et de recherche dans les universités" organized by OCDE in Nisa; the concept was mentioned during the talks among Jean Piaget, Erich Jantsch and André Lichnerowicz. Psychology, as a form of disciplinary knowledge, could benefit from the revitalization and enrichment of its field by approaching a transdisciplinary perspective. This would help achieve a subjective objectivity and an objective subjectivity, by constantly questioning and always check understanding.

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## 1. Disciplinary knowledge and transdisciplinarity knowledge

Jean Piaget, a Swiss psychologist, philosopher, biologist and logician formulates a first sense of transdisciplinarity, as a superior stage of the interdisciplinary relationships, a stage to imply a total knowledge system without borders established among disciplines (Piaget, 1972). The author had the merit of surprising the necessity of a new form of knowledge. Later on this term was developed and it was given the sense it has today.

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The philosopher and physicist, Basarab Nicolescu defines the transdisciplinarity as something that exists at the same time among disciplines, inside the disciplines and beyond any discipline (Nicolescu 1999). The aim of the transdisciplinarity is the understanding of the present world from the perspective of the knowledge unity.

The words "three" and "trans" best expresses the term transdisciplinarity: „three" means the transgression of „two" and transdisciplinarity means the transgression of duality which opposes the binary couples such as subject – object, simplicity – complexity, etc.

Disciplinary knowledge refers to the most one and the same level of reality, while transdisciplinarity knowledge deals with the dynamic provoked by the simultaneous action of more than one levels of reality. The discovery of more than one levels of reality necessarily gets through disciplinary knowledge. So, transdisciplinarity, without being a new discipline emerges from disciplinary research which in its turn is clarified by the transdisciplinarity knowledge. In this respect, the disciplinary and transdisciplinarity research are not antagonistic, but complementary. Basarab Nicolescu makes a comparison between the two forms of knowledge (Nicolescu, 2002):

Table 1. Disciplinary knowledge and transdisciplinarity knowledge

Disciplinary knowledge	Transdisciplinarity knowledge
In vitro	In vivo
External world (object)	Correspondence between external world (object) and internal world (subject)
Knowledge	Understanding
Analytical intelligence	New type of intelligence - balance between mental, feelings and body
Oriented towards power and possession	Oriented towards bewilderment and sharing
Binary logic	The logic of the included third
Values exclusion	Values inclusion

Profound knowledge is a new type of knowledge - transdisciplinarity knowledge, which corresponds to an in vivo knowledge. This new type of knowledge is defined by the correspondence between the external world of the object and the internal world of the subject.

Disciplinary knowledge and transdisciplinarity knowledge are therefore complementary and not antagonistic, both methodologies being founded on scientific spirit. Transdisciplinarity methodology enriches other disciplines, bringing new and necessary clarifications which cannot be generated by a disciplinary methodology; transdisciplinarity methodology does not replace the methodology of each discipline. In the presence of many levels of reality, the space among the disciplines and beyond them is full. The discontinuous structure of reality levels determines the discontinuous structure of the transdisciplinarity space which explains why the transdisciplinarity research is basically distinct from the disciplinary research, but at the same time complementary.

## 2. Psychological and transdisciplinary knowledge

For example the psychological knowledge just as the disciplinary knowledge is an in vitro knowledge; at least this is the aim of psychology, in its ambition of standing out as a science. Due to the psychology's desire to impose itself as a science, there resulted a bigger and bigger fragmentation and hybridization of the object study by deepening and development of a field as targeted as possible. This explains the multiple new disciplines, from the disciplines studying man as a bio-socio-spiritual being to the disciplines that deal with the main types of activities performed by man, up to the disciplines preoccupied by the physical and psychological integrity insurance.

Psychology's object of study is appropriately represented by the psychic life (clinical psychology, psychosomatic, psychotherapy, neuropsychology, etc.) by activity or behaviour (education psychology,

organizational psychology, judiciary psychology, military psychology, etc.) by man as a bio-socio-spiritual being (religion psychology, moral psychology, social psychology, etc.).

If from the beginning of the XX century when the humanistic perspective came into being, the psychologists tried to study the whole man as unique and unitary being in which biologic elements combined with those cultural, spiritual and social, in present the psychology studies are more and more targeted and by this also limited. The researchers concentrate on more and more profound aspects forgetting that in the end, the psychology object of study is man as whole. Certainly man is not just a biologic-man (psychophysiology and psychosomatic), behaviour-man (behaviour psychology), spiritual-man (religious psychology), social-man, cultural-man (social psychology), psychic-man (psychoanalysis) etc. In the purpose of a deeper knowledge, man is reduced to its component parts, and its psyche is divided (to a didactical purpose) in processes, mechanisms, activities and psychological features which interacts; everything is described, analyzed and explained by reference to behaviours, or emotional feelings, or motivations, or the cognition.

To be known man is taken from his reality in order to be placed in a different sterile reality, that of the researcher fact which makes man known only in a fragmentary one levelled reality.

### 2.1. The "Reality" of psychology and the "Reality" of transdisciplinarity

If the desideratum of any science is knowledge of reality, psychology, when is speaking of reality, refers to psychic reality which is an understandable fact because its field of study, of knowledge is the psychic. Reality is thus a psychic one, defined as "that which opposes appearances and hiding behind them" (Doron, R. & Parot, F.,1999), on the other hand, the notion of psychic reality emphasizes that "mental activity produces psychological effects which are no less real than the events or experiences outside world" (Doron, R. & Parot, F.,1999) in terms of subjective experience. In psychoanalysis, the concept applies to what appears "what is real in psychic, namely the unconscious desires" (Doron, R. & Parot, F.,1999). Freud talks about the reality principle, as the abandonment of hallucinatory satisfaction of desires by comparing with the actual state of the external world.

Psychology offers to the concept of reality a singular signification that of an unconscious desire – the psychic reality being in this context a hidden reality beyond appearances. Psychic reality is regarded as having inner resonance similar to that which events of the outside world have. Psychic reality is therefore a living reality and a subjective one.

From the transdisciplinary point of view, the psychic reality is on the subject's reality level:

LR 1	The spiritual level
LR 2	The psychic level (or the psychic reality in psychology)
LR 3	The biological level
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Figure 1. The subject's reality levels

From the disciplinary point of view, the reality appears to be homogeneous, governed by universal laws. From the multidisciplinary perspective, the reality is fragmented in disparate parcels corresponding to the existing disciplines. Each of these two versions of reality offers only a facet of its complete image: unity and respectively plurality. To the question "What is reality?" cannot be answered based solely on a discipline, however complex it may be. Transdisciplinary approach proposes a meeting of (among) disciplines, under the sign of included third, into a reality that is both open unity and complex plurality. Reality is thus a transdisciplinary one, requiring a unified vision between exact sciences and human sciences.

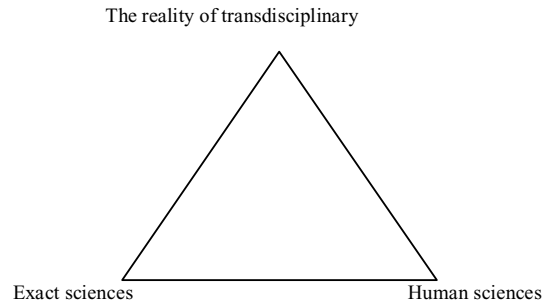


Figure 2. The reality of transdisciplinary-  
a unified vision between exact sciences and human sciences

### 3. Conclusions

Regarding reality we form a set of images that includes perceptions, representations, expectations and our judgments. At the same time, the image we have regarding reality with the expectations, beliefs, feelings and our behaviours, alter and influence the reality, which is in constant transformation. It is a vertical spiral movement, acting through what we believe about reality, which in turn is changing due to the action, causing a change in our set of beliefs. "The reality depends on us: it is plastic" (Nicolescu, 2009).

Reality, is not something outside or inside us, it is at the same time outside and inside. Consequently we bear the responsibility for what is reality as we choose to get into harmony with it or, on the contrary, disturb it.

The proliferation of disciplines and branches of study, so beneficial for the depth of knowledge, makes any unity of knowledge increasingly illusory. Thus, knowledge becomes increasingly more divided, making communication difficult between specialists in the same field with different training, thus making it difficult to obtain an overall picture.

By studying the inner world in a scientific manner and in an objective way, psychology research is often detached from the natural framework or is focused on reproduction in laboratory conditions of a situation related to a particular aspect of life, by studying the relationship among many variables.

Objective and impersonal attitude of the psychology researcher determines the loss of aspects related to singularity of mental phenomena which can lead to sterile studies without relevance to human life and growth. Therefore, objective methods in psychology should join subjective methods in order to capture the multi-level reality of man. The subject-observer has to become subject-participant to the consistency and coherence of objective reality.

Desiring to describe, analyze and explain the man and his psyche, psychology gets to study it in pieces, thus making an involuntarily split. This tearing of man in order to know, is difficult if not impossible to understand, precisely, that is why researches in psychology require to be guided by the spirit of transdisciplinary. The aim is to achieve a subjective objectivity and an objective subjectivity, always questioning, always checking understanding, namely a combination of external knowledge with the internal one.

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